

What is Claimed Is:

1. A method of assembling a block stringer for a pallet comprising:
 - providing an automated pallet assembly apparatus having an assembly path, a slat dispensing station, and a block dispensing station, the assembly path operatively connecting the slat dispensing station to the block dispensing station;
 - providing a plurality of slats to the slat dispensing station of the assembly apparatus, each of the plurality of slats having a longitudinal length, a lateral width, and a transverse thickness, the longitudinal length of each of the plurality of slats defining first and second longitudinal ends of the respective slat;
 - providing a plurality of blocks to the block dispensing station of the assembly apparatus;
 - utilizing the assembly apparatus to automatically longitudinally move a first one of the plurality of slats along the assembly path from the slat dispensing station toward the block dispensing station and to automatically stop the movement of the first slat at a first position along the assembly path, the first position being such that the first longitudinal end of the first slat is positioned adjacent the block dispensing station along the assembly path;
 - automatically biasing a first block of the plurality of blocks into engagement with the first slat via the assembly apparatus, the engagement of the first block with the first slat occurring with the first slat stopped in the first position such that the first block engages the first slat adjacent the first longitudinal end of the first slat; and automatically fastening the first slat to the first block while the first slat and the first block are being

biased into engagement with each other;

2. A block attacher for attaching blocks to slats as stringers for pallets comprising:

a slat dispenser disposed to dispense individual slats to a first individual slat driver;

a second slat driver, at least said second slat driver being selectively positionable;

at least one block dispenser, said block dispenser being disposed to dispense a block to an assembly station;

a position fixture disposed to operatively cooperate with said second slat driver and said at least one block dispenser to position the dispensed block abutting the individual slat when said second slat driver is in a first selected position;

at least one other position fixture disposed to operatively cooperate with said second slat driver to position a second dispensed block abutting the individual slat when said second slat driver is in at least one other selected position;

a block fixator disposed to fix said first dispensed block to said slat when said second slat driver is in said first selected position and further disposed to attach said at least one other block to the individual slat when said second slat driver is in said at least one other position.

3. The block attacher of claim 2 wherein said block fixator is at a separate work station from said block dispenser.

4. The block attacher of claim 3 wherein said block fixator is at an attachment station having a clamping device disposed to clamp each dispensed block against the individual slat.

5. The block attacher of claim 2 further comprising a stringer ejector.
6. The block attacher of claim 2 further comprising a second block dispenser.
7. The block attacher of claim 6 wherein said first block dispenser and said second block dispenser are dimensioned to dispense different sized blocks.
8. The block attacher of claim 7 wherein said at least one other position fixture is dimensioned to position a different sized block abutting the individual slat than said first position fixture.
9. The block attacher of claim 2 wherein said first slat driver includes a chain.
10. The block attacher of claim 2 wherein said second slat driver includes a chain.
11. The block attacher of claim 2 wherein said first and second slat drivers both include chains, and said chains turn in operative coordination through a gear set.
12. The block attacher of claim 2 wherein said block dispenser has a piston having a tooth.
13. The block attacher of claim 2 wherein said second slat driver is at least one drive wheel.
14. The block attacher of claim 2 wherein said position fixtures are on a chain.
15. The block attacher of claim 2 further comprising at least one biasing spring disposed to bias each of the dispensed blocks into each of said position fixtures.
16. A method of producing individual stringers for block pallets comprising:
driving an individual slat to a first selected position;
dispensing a first block to abut the individual slat at a preconfigured location on said individual slat when said individual slat is in said first selected position;

maintaining the first block in said first preconfigured location relative to the individual slat;

dispensing a second block to abut the individual slat at a second preconfigured location when said individual slat is at a second selected position;

maintaining the second block on the individual slat at said second preconfigured location;

fixing the first block to the individual slat; and

fixing the second block to the individual slat.

17. The method of claim 16 wherein said fixing is by stapling.

18. The method of claim 16 wherein said step of dispensing a first block is by a first block dispenser and said step of dispensing a second block is by a different block dispenser.

19. The method of claim 16 wherein the first dispensed block and the second dispensed block are different dimensions.

20. The method of claim 16 further comprising the step of ejecting a finished stringer.

21. The method of claim 16 wherein said driving step is executed by a drive chain having position fixtures attached thereto.

22. The method of claim 21 wherein said driving step is executed in part by at least one other driver.

23. The method of claim 22 wherein said first and second drivers both include chains, and further comprising connecting said chains through a gear set.

24. The method of claim 16 wherein said slats are dispensed from a magazine,

said magazine being adjustable to dispense different size slats.

25. The method of claim 16 further comprising a first block magazine disposed to feed said first block dispenser.

26. The method of claim 25 further comprising a second block magazine disposed to feed said second block dispenser.

27. A block stringer assembler comprising:

a slat magazine;

a first drive chain;

a slat dispenser disposed to separate individual slats from said slat magazine and place the individual slats onto said first drive chain;

a second drive chain disposed to receive dispensed individual slats from said first drive chain;

a first block magazine;

a second block magazine;

a first block dispenser disposed to separate individual blocks from said first block magazine and place the individual blocks from said first block magazine onto the individual slats at a first preconfigured location;

a second block dispenser disposed to separate individual blocks from said second block magazine and place the individual blocks from said second block magazine on the individual slats at at least one other preconfigured location;

a maintenance device disposed to maintain said individual block from said first block magazine at said first preconfigured location on the individual slat;

at least one other maintenance device disposed to maintain the individual block

from said second block magazine on the individual slat at said at least one other preconfigured location; and

a block fixator disposed to fix each of the dispensed blocks to each individual slat at said preconfigured locations.

28. The block stringer assembler of claim 27 further comprising a first block magazine drive chain disposed to bias a first magazine of blocks into said first block dispenser such that blocks in said first block magazine may be individually dispensed;

a second block magazine drive chain disposed to bias a second magazine of blocks into said second block dispenser such that blocks in said second block magazine may be individually dispensed.

29. The block stringer assembler of claim 27 wherein said maintenance device is comprised of a fixture attached to said second drive chain.

30. The block stringer assembler of claim 29 wherein said maintenance device is further comprised of a spring disposed to bias a dispensed block against said fixture.

31. The block stringer assembler of claim 27 wherein said block fixator is a stapler.

32. The block stringer assembler of claim 27 wherein said block fixator is at a separate station from a station where said individual blocks are dispensed into position on said individual slats.

33. The block stringer assembler of claim 27 wherein said block magazines are horizontal.

34. The block stringer assembler of 27 wherein said fixator is disposed to oppose a block compressor, said block compressor being disposed to hold said dispensed

blocks in a position abutted against the individual slats.

35. The block stringer assembler of claim 27 further comprising an ejector for ejecting assembled block stringers.

36. The block stringer assembler of claim 27 wherein said slat dispenser is pneumatically driven.

37. The block stringer assembler of claim 27 wherein said block dispensers are pneumatically driven.

38. The block stringer assembler of claim 27 wherein at least one of said first block dispenser or said second block dispenser comprises an extension face, said extension face being dimensioned to clear a block magazine; and

a pivoting push bar assembled on said extension face to dispense individual blocks from said one of said first or said second block magazines when said push bar is driven in a first direction and to pivot out of biasing contact with blocks in said block magazine when said push bar is driven in second direction.